



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,917	11/01/2001	Joseph A. Zupanick	067083.0161	7751

5073 7590 10/17/2003

BAKER BOTTS L.L.P.  
2001 ROSS AVENUE  
SUITE 600  
DALLAS, TX 75201-2980

EXAMINER
----------

KRECK, JOHN J

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/003,917

Applicant(s)

ZUPANICK ET AL.

Examiner

John Kreck

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 79-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 79-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 20. 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The amendment dated 8/15/03 has been entered.

Claims 79-98 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 79-83, 86-91, and 94-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puri, et al. in view of Murray, et al. (U.S. Patent number 5,785,133).

The Puri reference teaches the forming a drainage pattern and the step of simultaneously producing water and coal seam gas from a area of a coal seam. The Puri reference fails to explicitly disclose the forming a drainage pattern comprising auxiliary bores extending from and arranged on opposite sides of a main bore.

The Murray reference teaches a drainage pattern which includes a central bore and auxiliary bores arranged in substantially equal parallel spacing on opposite sides of the axis of the pattern. It is apparent that the Murray pattern provides for uniform coverage of a subterranean area from a single surface well.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used a pattern as taught by Murray, including auxiliary bores arranged

Art Unit: 3673

in substantially equal parallel spacing on opposite sides of the axis of the pattern with the step of simultaneously removing water and gas from the coal seam taught by Puri as called for in claim 79, in order to achieve uniform coverage of a subterranean area from a single surface well. The claimed property of the removal taking place "substantially uniformly" would be an inherent result of the uniform coverage achieved by the pattern taught by Murray.

With regards to claims 80 and 81; it would have been further obvious to one of ordinary skill in the art at the time of the invention to have horizontal bores as called for in claim 80; and to have included the auxiliary bores generally symmetrically arranged as called for in claim 81, in order to achieve uniform coverage of a subterranean area from a single surface well.

With regards to claim 82; the Murray pattern is rectangular, but is clearly applicable to any desired shape. Applicant has not disclosed that the equal length or width provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a rectangular shape because the shape of the drained area does not affect the production. Therefore, it would have been further obvious to one of ordinary skill in the art at the time of the invention to have produced water and gas from an area having equal length and width.

With regards to claim 83, Murray teaches the substantially horizontal pattern, thus it would have been further obvious to one of ordinary skill in the art at the time of

the invention to have modified the Puri method to have a horizontal pattern, in order to achieve uniform coverage of a subterranean area from a single surface well.

With regards to claim 86, it is well known in the drilling industry that the path taken by a well bore is a matter of design, based on factors such as surface conditions, property rights, and underground conditions. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have included the length of the auxiliary bores progressively shorten as they progress from a surface well bore as called for in claim 86; one of ordinary skill in the art would be motivated to make such a modification based on property rights (one of ordinary skill in the art would know not to drill a lateral to the property line) or underground conditions (one of ordinary skill in the art would know not to drill past a production zone, for example).

Regarding independent claim 87:

The Puri reference teaches the forming a drainage pattern and the step of simultaneously moving water and coal seam gas. The Puri reference fails to explicitly disclose the pattern having auxiliary bores extending from and arranged on opposite sides of a main bore.

The Murray reference teaches a drainage pattern which includes a central bore and auxiliary bores arranged in substantially equal parallel spacing on opposite sides of the axis of the pattern. It is apparent that the Murray pattern provides for uniform coverage of a subterranean area from a single surface well.

Art Unit: 3673

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used a pattern as taught by Murray with the step of moving taught by Puri, including auxiliary bores arranged in substantially equal parallel spacing on opposite sides of the axis of the pattern as called for in claim 87, in order to achieve uniform coverage of a subterranean area from a single surface well. The claimed property of the moving taking place "substantially uniformly" would be an inherent result of the uniform coverage achieved by the pattern taught by Murray.

With regards to claims 88 and 89; it would have been further obvious to one of ordinary skill in the art at the time of the invention to have include horizontal bores as called for in claim 88; and to have included the auxiliary bores generally symmetrically arranged as called for in claim 89, in order to achieve uniform coverage of a subterranean area from a single surface well.

With regards to claim 90; the Murray pattern is rectangular, but is clearly applicable to any desired shape. Applicant has not disclosed that the equal length or width provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a rectangular shape because the shape of the drained area does not affect the production. Therefore, it would have been further obvious to one of ordinary skill in the art at the time of the invention to have produced water and gas from an area having equal length and width.

With regards to claim 91, Murray teaches the substantially horizontal pattern, thus it would have been further obvious to one of ordinary skill in the art at the time of

the invention to have modified the Puri method to have a horizontal pattern, in order to achieve uniform coverage of a subterranean area from a single surface well.

With regards to claim 94, it is well known in the drilling industry that the path taken by a well bore is a matter of design, based on factors such as surface conditions, property rights, and underground conditions. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have included the length of the auxiliary bores progressively shorten as they progress from a surface well bore as called for in claim 94; one of ordinary skill in the art would be motivated to make such a modification based on property rights (one of ordinary skill in the art would know not to drill a lateral to the property line) or underground conditions (one of ordinary skill in the art would know not to drill past a production zone, for example).

With regards to claim 95, the Murray reference teaches a quadrilateral area, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have a quadrilateral area, in order to produce gas from a quadrilateral zone.

With regards to claim 96, the Murray method inherently provides uniform coverage, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have uniform coverage, in order to produce gas from the entire zone.

Art Unit: 3673

2. Claims 84, 85, 92, 93, 97 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puri, et al. and Murray, et al. as applied to claims 79 or 87 above, and further in view of Dickinson, III, et al. (U.S. Patent number 4,527,639).

The Puri and Murray references fail to teach a cavity. The Dickinson reference teaches a similar method, which includes forming an enlarged diameter cavity in order to facilitate drilling of laterals off of a main bore.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have included forming an enlarged diameter cavity as called for in claims 84, 92, 97, or 98, in order to facilitate drilling of laterals off of a main bore.

With regards to claims 85 and 93; it is apparent that the cavity dimensions are largely a matter of engineering design. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Puri method to have included a cavity having a diameter of approximately 8 feet as called for in claims 85 or 93, based on formation characteristics or drilling conditions.

### ***Response to Arguments***

3. Applicant's arguments filed 8/15/03 have been fully considered but they are not persuasive.

Applicant has argued that the combination of Murray and Puri is improper; because Puri requires multiple wells and Murray teaches a single well. Murray teaches



Art Unit: 3673

that a single well with multiple laterals can replace a number of wells; thus reducing drilling costs and achieving more efficient recovery. It is clear that the lateral pattern taught by Murray is more efficient than one of the single vertical wells taught by Puri. Murray does not teach that all wells in a formation must be replaced by a single well with multiple laterals. One of ordinary skill in the art would have found it obvious to, for example, replace each of the wells shown by Puri with a well having multiple laterals; thus having 5 wells with multiple laterals.

Applicant has argued that the combination fails to teach all of the limitations of the claims; specifically that the Murray pattern would not result in gas and water removed "substantially uniformly". The rejection is based on an assertion that the uniform drainage is inherent. This is supported by Examiner's reasoning that the uniform spacing shown in figure 2, would inherently result in uniform drainage. Compare figure 2 with applicant's figure 4; this pattern disclosed by Murray appears to be substantially identical to that disclosed by applicant.

See MPEP 2112:

*ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW INHERENCY, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBVIOUS DIFFERENCE "[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).*

Art Unit: 3673

Applicant has argued that it is unclear how the teaching of Dickinson would facilitate the drilling. It is clear that the cavity improves the maneuverability of the lateral drilling equipment.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is (703)308-2725. The examiner can normally be reached on M-F 5:30 am - 2:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703)308-2978. The fax phone

Art Unit: 3673

number for the organization where this application or proceeding is assigned is (703)  
872-9306.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is (703)306-  
4177.

JJK



**HEATHER SHACKELFORD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600**